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The Question of Balance

In a recent editorial, "Media and Science: Harmless Dioxin, Benign CFCs, and Good Asbestos" (*EHP* 102:10), David P. Rall decries the "mistakes in editorial policy and reporting" in science and medicine, and suggests "balancing controversial views in the same issue and to invite letters and commentary for publication in the same issue" of the journal in which the material is published. He dealt with "serious environmental concerns: dioxin, chlorofluorocarbons (CFCs), and asbestos."

In regard to the dioxin story in particular, Rall quoted from the Fingerhut (*1*) report that "workers exposed to dioxin for more than 2 years and observed for at least 20 years had a 46% greater cancer death rate than expected." This article was accompanied by an editorial which many newspapers quoted at the time of the report, and others did not, as Rall chose not to. The editorial, written by Bailar (*2*), notes that "Results are again equivocal. Parties on both sides of the continuing debate about the regulation of dioxin exposure will no doubt cite this work in support of their positions" (as I am doing, and as Rall did, by not citing the editorial). Bailar continues:

> Some cancers were indeed more frequent in an exposed group than among controls, but the differences were for the most part not statistically significant, and the exceptions might be explained by a combination of small, unavoidable biases in the data and the multiple post hoc comparisons. (Examine enough data at the usual 5 percent level of significance and about 1 time in 20 you will find a statistically significant result where there is no real effect.)

The information is there, but depending on the reporter, the newspaper, or the scientist you will inevitably get a different story. Following the Fingerhut article, for example, one newspaper headline read "Chronic Dioxin Exposure ups Cancer Risk," another read "More Research into Dioxin Urged," and still another "The Deadliness of Dioxin Put in Doubt By New Data."

Rall also states that "A 10-year follow-up of those exposed to dioxin after the chemical explosion at Seveso in 1976, published in *Epidemiology* this summer, showed an increase in some cancers"(*3*). I believe Rall might have mentioned, for completeness sake, that the report also indicated that in one group of exposed individuals, there was a decrease in breast and uterine cancer, as was observed in a very balanced news report from the *New York Times* on 26 October 1993, by Keith Schneider.

More recently, the article by Davis et al. "Decreasing Cardiovascular Disease and Increasing Cancer among Whites in the United States from 1973 through 1987" in the *Journal of the American Medical Association* (*4*), was accompanied by an editorial (*5*) which was in part critical of the work, yet many media reports failed to recognize the criticism of the editorial, while others gave a very balanced report by using both the article and the editorial (in particular Jane Brody of the New York Times, 16 February 1994).

These examples indicate that scientific information is readily available, either in the publication itself, or in the now common practice of the concurrent editorial comment, and is more often critical of the publication than not. Concurrent letters to the editors are not necessary. Reporters, in my opinion, have a good understanding of what they read; it is what they choose to report that may be faulted.

For the various media, the old saying applies, namely good news is no news, bad news is good news, except, of course, if you have a bias, and bias is not limited to reporters. We scientists are full of it, too.

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Regarding Bias

I was saddened to read Rall's editorial comment on the paper in *Science* entitled "Asbestos: Scientific Developments and implications for Public Policy" (*1*). He suggested the "industry association" of